

MINUTES

CITY OF LOMPOC - CACHUMA PROJECT MEMBERS NEGOTIATIONS POLICY COMMITTEES

December 13, 1993 - 7:00 p.m. Lompoc City Council Chambers 100 Civic Center Plaza, Lompoc

Members Present:

Joyce Howerton, City of Lompoc
Harold (Rusty) Fairly, City of Santa Barbara
John Gilmour, Carpinteria Water District
William Mullins, City of Lompoc
Jay Fisher, Santa Ynez River Water Conservation District
John Singer, Goleta Water District
Jan Abel, Montecito Water District

- 1. <u>Introduction of Members of the Policy Committees</u> Mayor Howerton opened the meeting for introduction of the members of the Policy Committees.
- 2. Presentation of Background Information Regarding Santa Ynez River and Lompoc Groundwater Basin Gary Keefe presented a description of the geographic and hydrologic features of the Lompoc area, including location of Lake Cachuma, the Santa Ynez River, and the various municipal wells in the Lompoc groundwater basin. He noted that typical Total Dissolved Solids (TDS) levels in the groundwater range from 1,200 to 2,200 milligrams per liter (mg/l) and that the City of Lompoc partially demineralizes and partially softens the groundwater as a part of its treatment program, bringing the level of TDS down to approximately 1,000 mg/l. He indicated that water quality in the basin worsens as one moves toward the west.

Stanley Hatch gave a presentation regarding the history of the Santa Ynez River and how its water is used. Average flow at the Narrows averages in excess of 140,000 acre feet per year (AFY), but ranges from zero to as high as 652,000 AFY. Groundwater basins in the Santa Ynez Valley have an approximate theoretical volume upwards of 11 million AF, but a working storage of only about 1.1 million AF. He noted that the safe yield of the basins is about 1 percent of the total capacity and that the various basins vary widely in recharge capacity. He presented information about the three dams and reservoirs on the Santa Ynez River, how they are operated and what yields they are able to provide. He described the series of water rights decisions issued by the State Water Resources Control Board (SWRCB) which culminated in Decision 89-18, the most recent decision affecting downstream release requirements for the Cachuma Project. He noted that Decision 89-18 is scheduled for review in 1994.

Mr. Keefe introduced Peter Martin of the United State Geological Survey (USGS) who discussed a USGS study of water quality in the Lompoc basin which began in 1986. The title of the report is the "Evaluation of Groundwater Resources in the Lompoc Area, Santa Barbara County California, Phase I Geohydrology and Water Quality Conditions 1987-1988",

commonly referred to as the "purple report" due to the color of its cover. Phase II, the portion referred to as the Solute Transfer Model, is due to be issued by USGS in 1994. Mr. Martin's presentation included the following points. The Lompoc groundwater basin is comprised of three zones; the shallow, middle, and main zones. In much of the basin, a clay and silt layer separates the main zone from the middle zone, meaning that vertical movement of groundwater between the zones is retarded. This clay and silt layer is absent in the eastern and southern portion of the basin (in the immediate vicinity of Lompoc) and there is relatively free flow between the shallow, middle and main zones. Most of the recharge from the Santa Ynez River occurs in the Lompoc basin in the southern and eastern portion due to the absence of the clay layer. Average annual municipal pumping is approximately equal to the annual recharge of the basin in this area. Poorer quality water is associated with the western end of the basin due to the influence of shale which underlies the alluvial deposits of the main (lower) aquifer.

Mr. Martin provided a summary of historical pumping patterns, noting that pumping increased during the 1940's, due to increases in both municipal and agricultural pumping. He then proceeded to discuss the issue of water quality. He noted that water quality degradation in the basin is believed to be the result of the influence of shale deposits rather than being caused by irrigation return flows. Mr. Martin concluded his presentation, noting in summary that:

- 1. There appears to be downward leakage from the shallow zone in the northeastern portion of the basin, contributing to the water quality degradation in the basin;
- 2. Municipal pumpage has intercepted most of the groundwater recharge from the Santa Ynez River;
- 3. Completion of Bradbury Dam has lowered the average discharge to the river and resulted in a higher average level of TDS in the river; and
- 4. A major source of groundwater degradation in the western part of the plain is upward leakage from shale underlying the alluvium and from leakage from the estuary.

Mr. Keefe stated that the City of Lompoc has realized the need for additional water quality data and has begun gathering such data. He then introduced Mr. David Schuster, consultant to the City of Lompoc. Mr. Schuster summarized his background and that of Tim Durbin, also a consultant to the City of Lompoc, noting the differences between a surface water perspective and a groundwater perspective. He explained that he and Mr. Durbin are working to determine the impact of the Cachuma Project on both the quantity and the quality of the water that is recharged into the Lompoc basin. He summarized their efforts to collect river flow data, where available, and to estimate it where complete records were not available. He indicated that their first task is to outline what the City of Lompoc wants from the Cachuma Project members in return for dropping opposition to the Cachuma Project renewal. He stated three components of their objective:

- 1. Operation of the Cachuma Project should be adjusted to so as prevent further degradation of the water quality in the Lompoc basin, as they believe has occurred in the past;
- 2. The quality degradation that they believe has occurred to date should be remedied;

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and

3. The economic impacts associated with water quality degradation, such as costs of additional treatment and appliance replacement, should be compensated.

Mr. Schuster presented their estimate that actual average annual recharge to the Lompoc basin for the period of 1953-1991 was 14,100 AFY and that the average quality of that recharge was 890 parts per million (ppm) TDS. In the absence of the Cachuma Project for this period, they estimated average annual recharge would have been 16,700 AFY with a TDS level of 780 ppm. Based on their use of the Santa Ynez River Model, they estimated annual recharge of 14,500 AFY and water quality of 900 ppm if Cachuma had been operated according to SWRCB Decision 89-18 during the period of 1953-1991. He indicated that this information leads them to the conclusion that Decision 89-18 does not eliminate the impacts of the Cachuma Project on Lompoc, noting that in terms of quantity there is a difference of 2,200 AFY of average annual recharge. He concluded by providing two scenarios for meeting the objectives of the City of Lompoc as stated. The first involves receipt of an additional 3,000 AFY on top of the 16,700 AFY of recharge they believe they should be getting and results in correction of their estimated impacts in 30 years. The second scenario involved 7,000 AFY of additional recharge with a correction of the estimated impacts in 15 years. He emphasized that the values 3,000 and 7,000 were chosen arbitrarily for the purposes of illustrating possible solutions to the problem as seen by Lompoc. He compared the amount of additional recharge in the two scenarios with the 14,500 AFY which they estimate for operation in accordance with Decision 89-18.

Following Mr. Schuster's presentation, there was discussion among Jon Ahlroth (County Water Agency), Mr. Martin, and Mr. Schuster about how an average TDS of 890 ppm for the period of 1953-1991 was determined in the absence of water quality data prior to 1978. This was followed by discussion of when the details of Mr. Durbin's river model would be made available. Mr. Schuster said that they would be available shortly.

- 3. Summary of Meetings of the Technical Committees Steve Mack (City of Santa Barbara) was introduced in order to present a summary of the Technical Committees' work. He began by stating his expectation that the report to the Policy Committees was to have been a joint report, and his surprise that the presentation had turned into a presentation by the Lompoc Technical Committee alone. He summarized the history of the Cachuma Project members' efforts to obtain the back-up information necessary to evaluate Mr. Durbin's work and how that led to the formation of a Modeling Subcommittee. He presented a projection of the time necessary for the Modeling Subcommittee to make some progress toward developing a consensus about modeling tools.
- 4. Proposal to Modify Target Date for Reaching Agreement Among the Parties Mr. Mack called attention to a resolution in the Policy Committees packet that provides for an extension of the time period contained in the agreement that initiated the negotiations. There was concurrence on the part of the Policy Committees that an extension should be approved. Mayor Howerton indicated that she would take the proposal for an extension to the Lompoc City Council for action. It was agreed tentatively that the Policy Committees would meet

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next on February 16, 1994 in Santa Barbara, pending appropriate progress on technical issues.

- 5. Other Business None
- 6. Public Comment None

The meeting was adjourned at approximately 8:55 p.m.

(E:BFLCPMTC.MIN)

* NOTICE OF PUBLIC MEETING *

City of Lompoc - Cachuma Project Members Negotiations

Meeting of Policy Committees

Monday, December 13, 1993 7:00 p.m. Lompoc City Council Chambers 100 Civic Center Plaza, Lompoc

AGENDA

- 1. Introduction of Members of the Policy Committees
- 2. Presentation of Background Information Regarding Santa Ynez River and Lompoc Groundwater Basin
- 3. Summary of Meetings of the Technical Committees
- 4. Proposal to Modify Target Date for Reaching Agreement Among the Parties
- 5. Other Business
- 6. Public Comment

Members of the public will have the opportunity to address the Policy Committees on any subject that is within the scope of the negotiation process.

7. Date and Time of Next Meeting